

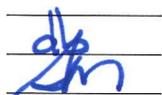
EVERETT CITY COUNCIL AGENDA ITEM COVER SHEET

PROJECT TITLE:

Amendment No.1 with BHC
Consultants, LLC for Design
and Construction Support
Services of "Sewer Regulators
4 and 39 Modifications"

_____ Briefing
_____ Proposed Action
_____ Consent
_____ X Action
_____ First Reading
_____ Second Reading
_____ Third Reading
_____ Public Hearing
_____ Budget Advisory

COUNCIL BILL # _____
Originating Department Public Works
Contact Person David Voigt
Phone Number 425-257-8983
FOR AGENDA OF Sept. 28, 2016

Initialed by:
Department Head _____
CAA _____
Council President 

<u>Location</u>	<u>Preceding Action</u>	<u>Attachments</u>	<u>Department(s) Approval</u>
	Professional Services Agreement for Predesign, December 9, 2015	Amendment No. 1	Public Works

Amount Budgeted	\$2,000,000	
Expenditure Required	\$356,897	Account Number(s): UP 3633
Budget Remaining	\$1,643,103	
Additional Required	\$0	

DETAILED SUMMARY STATEMENT:

The need for this project is based on the City's 2014 Comprehensive Sewer Plan Update Capital Improvement Plan C-11 to reduce Combined Sewer Overflow discharges at Snohomish River Outfall #4. This project is also listed on the City's Agreed Order with Ecology.

A preliminary design study and hydraulic modeling has been completed that defines the necessary changes to sewer conveyance piping and control structures (regulators). The project is located in the Combined Sewer System. Regulator 4 is located on Chestnut Street between Everett Avenue and 26th Street and regulator 39 is located at the intersection of Summit Avenue and 26th Street.

This amendment is for final design services and construction support and would add \$356,897 to the original Professional Services Agreement of \$100,455 for a total of \$457,352. Construction is scheduled to occur during 2017 and cost approximately \$1.2 million.

RECOMMENDATION (Exact action requested of Council):

Authorize the Mayor to sign Amendment No. 1 with BHC Consultants, LLC for Design and Construction Support services of "Sewer Regulator 4 and 39 Modifications" for an additional amount not to exceed \$356,897.

**AMENDMENT NO. 1 TO PROFESSIONAL SERVICES AGREEMENT BETWEEN
THE CITY OF EVERETT
AND
BHC CONSULTANTS, LLC**

The City and BHC Consultants LLC agree to amend and modify their professional services agreement dated (the "Agreement") as follows:

1. The effective date of this Amendment is September __, 2016.
2. The work included in Exhibit A-1 of this amendment is added to the Scope of Work described in Exhibit A of the Agreement.
3. Paragraph 4(B) is modified to read as follows:
The Contractor shall be paid such amounts and in such manner as described in Exhibit B of the Agreement, and Exhibit B-1 of this amendment.
4. Paragraph 4(D) is modified to read as follows:
Total compensation, including all services and expenses, shall not exceed a maximum of Four Hundred Fifty-Seven Thousand, Three Hundred, and Fifty-Two Dollars (\$457,352).
5. All terms, conditions and provisions of the Agreement remain in full force and effect except as expressly modified by this Amendment.
6. Exhibits associated with this Amendment No. 1 are attached herewith.

**CITY OF EVERETT
WASHINGTON**

BHC CONSULTANTS, LLC,

By: _____
Ray Stephanson, Mayor

By: 
Craig P. Chambers, Managing Member

Date

9/13/16

Date

ATTEST:

APPROVED AS TO FORM:

Sharon Marks, City Clerk

James D. Iles, City Attorney

Date: _____

Date: _____



City of Everett

**SEWER REGULATORS R4 AND R39 MODIFICATIONS
WORK ORDER NO. UP3633**

Design, Bidding Assistance and Construction Support

**Exhibit A-1
Scope of Services**

September 9, 2016

EXHIBIT A-1 SCOPE OF SERVICES

Background

The City of Everett, Washington (City) has selected BHC to provide engineering analysis, design, and permitting assistance for modifications to Sewer Regulators R4 and R39.

Modeling analysis suggests Regulator R4 is diverting excess wet weather flow from the Summit Interceptor system to Lift Station 32 and contributing to CSO events at SRO4. Also, the gate structure (R39) at the upstream end of the Summit Tunnel is surcharging in a manner that causes excess wet weather flow to overflow to Lift Station 32 and SRO4. The improvements resulting from this project are expected to maximize the conveyance capacity of the Summit Avenue Interceptor and the Summit Tunnel and would reduce wet weather flow rates to Lift Station 32 and potentially bring SRO4 into regulatory compliance. Additionally, Regulator R4 has the future potential to be converted to a “flow-splitter” to divert Stormwater, proposed to be separated within Basin NC, directly to the Snohomish River. The City desires to have this capability to address future CSO control issues.

BHC performed preliminary design services which included hydraulic modeling and options analysis. This work was summarized in the *R4 & R39 Hydraulic Analysis and Upgrades Report, June 2016*. The preliminary design recommended several improvements:

- Replacement of the R4 structure – the new R4 structure would provide overflows to the existing 30-inch bypass pipe in Chestnut Street and would have the ability to be used as a flow splitter for future stormwater separation.
- Modifications to R39 – The existing R39 structure would be modified to adjust weir heights and provide better access.
- Stormwater separation – The preliminary design recommended stormwater separation in the Cleveland Street basin and Basin NC. This recommendation is being addressed by the City and is not included by this scope of services.

Scope of Services

Task 1 – Project Management and QA/QC

Objectives

Monitor, control and adjust scope, schedule, and budget as well as provide monthly status reporting, accounting, and invoicing.

BHC Services

1. Coordinate and manage the project team.
2. Subcontract with and manage project subconsultants.
3. Prepare monthly status reports describing the following:
 - a. Services completed during the month
 - b. Services planned for the next month
 - c. Needs for additional information
 - d. Scope/schedule/budget issues

- e. Schedule update and financial status summary
- f. Provide an estimated cash flow (billing) forecast
4. Prepare monthly invoices formatted in accordance with contract terms.
5. Project Manager will communicate with the client on a weekly basis or more frequently as needed. Most communication can be performed by phone conference or email. Face-to-face meetings can be conducted as needed. Communications will review design progress, schedule, and budget issues.
6. Provide QA/QC review of deliverables prior to delivery in accordance with BHC QA/QC Policies.
7. Host web-conference meetings if needed.

City of Everett Responsibilities

1. Attend project management meetings.
2. Timely processing and payment of invoices.
3. Review and process contract change requests and amendments, if needed.

Assumptions

1. The project duration will be approximately 16 months.
2. Project management meetings will consist of weekly phone conferences and occasional face-to-face meetings. It is assumed that the weekly phone conferences will be approximately 30 minutes, and up to 4 face-to-face meetings of approximately 3 hours each will be held.
3. Invoices will be BHC standard invoice format.
4. Copies of subconsultant invoice statements will be provided with monthly invoices. Incidental miscellaneous expenses (printing, travel reimbursement etc.) do not require submittal of backup statements.

Deliverables

1. Scope of services, schedule (Gantt chart in MS Project), and budget (e-mailed PDF file).
2. Monthly reports and invoices (one hardcopy with invoice by US mail and e-mailed PDF file)
3. Monthly project schedule and budget updates (included in monthly project report, emailed PDF file).
4. Written summary notes describing decisions, direction, action items, or issues associated with scope and budget (e-mailed PDF files).

Task 2 – Hydraulic Analysis/Modeling

Objectives

During design there may be some additional modeling needed to evaluate alternatives and to confirm or optimize design parameters such as weir elevations and pipe sizes. In addition, recently installed flow monitoring may provide new data that would be useful to re-running the hydraulic model.

The intent of this task is to provide a limited budget for these modeling efforts. The modeling effort under this task is limited to the budget shown; if additional modeling is needed beyond the budget, a budget amendment may be required.

BHC Services

1. Hydraulic Modeling:
 - a. Evaluate variations on alternatives to previously defined modifications based on City's desire to not build the pipe augmentation on Chestnut and 26th St. One variation includes modeling R4's weir set at an elevation of 42 feet rather than 37.6 feet.
 - b. Perform long term simulations to estimate CSO frequency.
 - c. Define and verify design parameters for the modified regulator elements.
 - d. Utilize sewer monitor data to calibrate or otherwise refine modeling accuracy.

City of Everett Responsibilities

1. Furnish active flow monitoring to assist with modeling and calibration needs.

Assumptions

1. Hydraulic analysis will be performed using long term simulations to estimate CSO overflow frequency and for design purposes.

Deliverables

1. Once the final project configuration is determined, a summary Technical Memorandum (maximum of 5 pages of text, PDF file via email) detailing the results of the modeling done to support the project design.

Task 3 – Geotechnical Investigation**Objectives**

Geotechnical data will be needed at the new R4 structure. This will be a deep excavation (approximately 25 ft deep) that may also require dewatering if groundwater is encountered. The geotechnical investigation and report will be performed by HWA Geosciences (HWA) as a subconsultant to BHC.

BHC Services

1. Coordinate with HWA and incorporate their recommendations into the design.
2. Perform a site visit with the geotechnical engineer to determine boring locations.
3. Review the draft geotechnical report and provide comments to HWA.

HWA Geosciences Services

1. See attached scope of work and budget from HWA.

City of Everett Responsibilities

1. Provide site access for the investigation. Obtain permission from WSDOT for borings in the WSDOT ROW.

Assumptions

1. See assumptions in the attached scope of work from HWA.

Deliverables

1. See deliverables in the attached scope of work from HWA.

Task 4 – Surveying**Objective**

Additional surveying of the I-5 right-of-way (ROW) area and off-ramp at the R4 site will be needed to prepare utility easements or licenses (legal description), right-of-entry and traffic control documents for this area. These documents and plans will need to be provided to WSDOT for review and approval. This task will be completed by Reid-Middleton as a subconsultant to BHC.

BHC Services

1. Coordinate with Reid-Middleton and provide them with a sketch of the area needing to be surveyed.
2. Review base map developed by Reid-Middleton and provide comments for revisions. Incorporate base map into the design.

Subconsultant (Reid-Middleton) Services

1. See attached scope of work and budget from Reid Middleton.

City of Everett Responsibilities

1. Coordinate with WSDOT to provide site access.
2. Provide high definition aerial photo (2015) for use as base image if needed.

Assumptions

1. Existing City monuments in the vicinity of the project are assumed to exist and are suitable for horizontal and vertical control.
2. See additional assumptions on attached scope of work from Reid Middleton.

Deliverables

1. AutoCAD base map or maps for the I-5 ROW and access ramp area.
2. Legal description for new utility easement encompassing the new facilities on WSDOT property at R4 site.
3. See attached scope of work from Reid Middleton for additional information on deliverables.

Task 5 - Design**Objective**

60%, 90% and final design plans, specifications, and opinions of probable construction cost will be prepared for the R4 and R39 Modifications. It is anticipated that the R4 Modifications will include the following new components:

- An adjustable weir and overflow structure at R4.
- Manhole on the 42-inch influent pipe with conveyance to the R4 structure.
- Manhole on the 48-inch discharge line with conveyance to the R4 structure.
- Manhole on the 30-inch bypass line with conveyance to the R4 structure.
- Conveyance pipe between existing 30-inch inlet pipe and R4 structure.

It is anticipated that the R39 Modifications will include the following components:

- Remove existing manhole top slab and install new precast manhole top slab. Provide access hatch(es) in the new roof slab based on direction from City staff.
- Install new weir, replace gates and replace grating inside the existing R39 structure.

BHC Services

1. 60% Design – Prepare construction drawings, specifications (TOC and selected sections needing review by City) and opinion of probable construction cost. Quality control review of the 60% drawings, specifications, and opinion of probable cost will be performed.
2. 60% Design Workshop - Meet with the City staff to obtain review feedback on the 60% design documents.
3. 90% Design - Prepare construction drawings, specifications and opinion of probable construction cost. Incorporate comments from the City's 60% review. Quality control review of the 90% drawings, complete specifications, and opinion of probable cost will be performed.
4. 90% Design Workshop - Meet with the City staff to obtain review feedback on the 90% design documents, discuss adjustments to project material quantities, force account amount, flow bypassing issues, special construction constraints and construction duration.
5. Final Design - Prepare Final construction drawings, specifications and opinion of probable construction cost. Incorporate comments from the City's 90% review. Quality control review of the Final drawings, specifications, and opinion of probable cost will be performed.
6. Designs documents shall also address: location of existing utilities and coordination for relocation or conflict resolution, water main relocation design, street restoration including curbs, sidewalk and ADA curb ramps, storm drainage, construction sequence, temporary erosion control, etc.

City of Everett Responsibilities

1. Provide timely input on all deliverables and information requests from the Consultant. Client reviews shall be completed within 2-weeks.
2. Provide consolidated review comments.
3. Actively participate in workshops to provide input and design recommendations and make decisions or furnish direction.
4. Provide desired input on features for new and upgraded facilities.

Assumptions

1. Task 5 includes design assistance from Reid Middleton for traffic control and road restoration drawings. Please see the attached scope of work and budget from Reid Middleton.

2. Road restoration at the R4 and R39 intersections includes complete replacement and repair of the intersections, including curbs and ADA ramps in accordance with City standards.
3. The City will submit the final drawings, specifications and hydraulic modeling tech memo to Ecology as a courtesy copy. It is assumed that Ecology will not be providing comments that need to be addressed in the design.
4. Workshops will be no more than 2 hours in length, and will include 1 hour of travel time and 1 hour for preparation and meeting notes following the workshop for a total of 4 hours per workshop. Workshops will be attended by up to two consultant staff (Project Manager and Project Engineer).
5. Any required easements will be obtained by the City.
6. Specifications will be prepared in WSDOT APWA format. City will furnish current master specifications and assist with drafting special technical specifications.
7. Drawings will be in Autodesk current or most prevalent version. City CAD manager will coordinate with consultant regarding additional CAD standards.
8. A preliminary drawing list is provided at the end of this document.

Deliverables

1. 60% level of completion plans, technical specifications (TOC and selected sections), and opinion of probable construction costs (PDF and 8 hard-copies, half size). CAD files for City review related to file organization.
2. 90% level of completion plans, technical specifications (complete), and opinion of probable construction costs (PDF and 8 hard-copies, half size). CAD files for final drawing layout and appearance.
3. Final plans, technical specifications, and opinion of probable construction costs (PDF and 3 hard-copies, half size). CAD files for use by City in production of asbuilt record plans.

Task 6 – Permitting Assistance

Objective

Provide support services and technical data to the City for preparation of permit documents. The City will obtain the necessary permits, easements or other regulatory approvals.

BHC Services

1. Review existing information provided by the City.
2. Identify WSDOT right-of-way area affected by the project and easements needed for the project. Provide data to be used by the City for the SEPA checklist.

City of Everett Responsibilities

1. Provide information that is available and/or requested.
2. Identify needed permits and obtain permits for the project.
3. The City will be the lead in providing coordination with WSDOT.
4. The City will submit and obtain permits and obtain easements.

Assumptions

1. The R4 project site is located mostly within WSDOT right-of-way. It is anticipated that both temporary and permanent right-of-entry will be needed from WSDOT at this site.
2. There do not appear to be any environmental permits needed for this project. Possibly a SEPA checklist effort is necessary. The City would be the lead agency if a SEPA checklist is necessary.

Deliverables

1. Survey mapping and legal description of WSDOT right-of-way area affected by the project and approximate delineation of permanent utility easements and temporary construction easements needed for the project.
2. Preliminary quantities (square feet, cubic yards etc) that would be associated with the SEPA checklist.

Task 7 – Bidding Assistance**Objective**

Assist the City during the bidding and evaluation period by answering bidder questions and preparing addenda.

BHC Services

1. Address bidder questions.
2. Prepare addenda, if needed. Up to two addenda will be provided.
3. Review the bid tabulation (check for unbalanced bid prices).

City of Everett Responsibilities

1. Publish bid advertisement, post bid documents, and distribute bid documents as needed, issue addenda, conduct public bid opening.
2. Serve as primary contact for bidders during the bid period. Maintain planholders list.
3. Field bidder questions and distribute questions to BHC as needed.
4. Prepare bid tabulation.

Assumptions

1. Up to two addenda will be provided, if needed.
2. Extensive revisions to drawings or specifications will not be required.
3. The City will review bids and associated documents and determine the successful bidder.

Deliverables

1. Responses to bidder questions (email of PDF file).
2. Up to two addenda (PDF format).

Task 8 – Construction Support

Objective

Provide technical construction support including addressing contractor questions, reviewing technical submittals, reviewing change orders, attending meetings, and performing site visits. It is our understanding that the City will provide day-to-day onsite construction management and site inspections; therefore, BHC has not included costs for full-time construction observation.

BHC Services

1. Address RFIs. BHC will respond in writing to up to 10 RFIs. BHC's response to each RFI is budgeted to require up to 3 hours for the design engineer and ½ hour for a principal engineer.
2. Review technical submittals, including the shoring design and structural shop drawings for the R4 vault. The City will review non-structural and other submittals including concrete mix designs, earthwork materials, landscape materials, asphalt designs, etc. BHC will review up to 10 submittals for conformance with the plans, specifications, and design intent. BHC's submittal review is budgeted to require up to 3.5 hours for a design engineer and ½ hour for a principal engineer.
3. Assist the City in reviewing and preparing change orders. As the day-to-day construction manager, the City will have the primary role of preparing and reviewing change orders. BHC will provide technical assistance to the City for the preparation of change orders and will review change order requests prepared by the Contractor.
4. Attend construction meetings and perform site visits. BHC will perform up to 12 site visits/meetings during construction (approximately one visit/meeting every other week). Site visits/meetings can be used to attend the pre-construction meeting, onsite construction meetings, review construction progress, meet with the contractor, meet with City staff, and other activities. Meetings attended by BHC will include one project team member, likely the BHC project manager or design engineer. Each meeting and site visit is assumed to be up to 4 hours in duration, including travel to and from the site.

City of Everett Responsibilities

1. Perform full-time onsite construction inspection and management.
2. Coordinate and lead construction coordination meetings.
3. Maintain submittal and RFI logs. Maintain electronic construction management website, if desired.
4. Review red-line as prepared by the contractor, verifying construction changes. Prepare as-builts, as needed.

Assumptions

1. Submittals and RFIs will be obtained and transferred electronically.
2. No "special inspections" related to structural work are necessary.
3. Since the City will be providing construction management, it is assumed that the City will issue the declaration of construction completion, if required by Ecology.
4. Because the level of effort required for this task depends on factors outside of the Consultant's control such as contractor competence and cooperation, schedule, and weather related impacts, the scope of work for this task is limited to the level of effort

included in the budget in Exhibit B-1. If this budget is not adequate for Construction Support, BHC may request additional budget.

Deliverables

1. RFI responses, up to number listed above.
2. Reviewed submittals, up to number listed above.
3. Change order review comments.
4. CAD files for any design changes made to drawings during construction.

Task 9 - Additional Services

Objective

Provide a means of undertaking and compensating BHC for (approved) out-of-scope engineering work without delaying the project. In general, such work would be as requested by the City. Activities that could be included in Task 9 include: additional hydraulic modeling, investigation of alternative flow diversion methods, review of proposed contractor changes, review of alternative shoring design submittals, attendance at additional site visits or construction meetings, etc.

BHC Services

1. It is difficult to accurately anticipate potential out-of-scope tasks that may arise during the development of the project. This task establishes a contingency fund for unidentified and unanticipated work to proceed in a timely manner.

City of Everett Responsibilities

1. When identified, authorize additional services by email and/or in writing.

Assumptions

1. Approximately ten percent of the budget is established for additional services.

Deliverables

1. To be determined.

Schedule

Approximate project milestones are shown below.

Project Notice to Proceed	September 2016
60% Design Submittal	December 2016
90% Design Submittal	March 2017
Final Design Submittal	May 2017
Bids Due	July 2017
Construction Start	August 2017

City of Everett
 Sewer Regulators R4 and R39 Modifications
 Preliminary Drawing List
 9-Sep-16

SHEET #	DRAWING #	DRAWING NAME	RESPONSIBLE PARTY
GENERAL			
1	G1	Cover Sheet	BHC
2	G2	Vicinity Maps, Legend, Symbols and Index	BHC
3	G3	General and Survey Notes	BHC/RM
CIVIL			
4	C1	R4 Temporary Erosion and Sediment Control Plans and Details	RM
5	C2	R39 Temporary Erosion and Sediment Control Plans and Details	RM
6	C3	R4 Existing Site Conditions and Demolition Plan (with survey control)	BHC
7	C4	R39 Existing Site Conditions and Demolition Plan (with survey control)	BHC
8	C5	R4 Grading Plan and Site Layout	BHC
9	C6	R4 Site Piping Plan and Utility Relocation Plan	BHC
10	C7	R4 Pipeline Profiles	BHC
11	C8	R39 Improvement Plan and Sections	BHC
12	C9	R4 Paving Plans and Details	RM
13	C10	R4 Paving Plans and Details	RM
14	C11	R39 Paving Plans and Details	RM
15	C12	R39 Paving Plans and Details	RM
16	C13	General Paving Plans and Details	RM
17	C14	Typical Roadway Sections	RM
18	C15	Civil Details - Sheet 1	BHC
19	C16	Civil Details - Sheet 2	BHC
20	C17	R4 Traffic Control Plan	RM
21	C18	R39 Traffic Control Plan	RM
22	C19	Traffic Control Plan	RM
23	C20	Construction Sequencing Plan	BHC
24	C21	Construction Sequencing Plan	BHC
STRUCTURAL			
25	S1	Structural General Notes, Abbreviations and Details	BHC
26	S2	Structural Details - Sheet 1	BHC
27	S3	Structural Details - Sheet 2	BHC
28	S4	R4 Structure Plan and Sections	BHC
29	S5	R4 Structure Sections	BHC
30	S6	R4 Sections and Details	BHC
31	S7	R4 Above Grade and Grating Plan	BHC
32	S8	R39 Top Slab Plan	BHC
33	S8	R39 Sections and Details	BHC
34	S9	R39 Grating Plan	BHC

September 9, 2016
File No. 222016.001

Mr. Jim Gross
BHC Consultants, LLC
1601 Fifth Avenue, Suite 500
Seattle, WA 98101

Reference: Agreement for Professional Services, dated January 28, 2016
City of Everett Regulator R4 & R39 Modification

Subject: Supplement No. 1, Roadway Restoration and Surveying

Dear Mr. Gross:

We are pleased to submit the following proposal for Street and Alley Restoration and Surveying. This letter serves as a supplement to our referenced agreement. The terms and conditions established by the agreement are unchanged except as noted below.

A. SCOPE OF SERVICES

See Exhibit "A," Scope of Services.

B. COMPENSATION

Reid Middleton shall be paid on a time-plus-expense basis using the rates indicated in Exhibit "A," Schedule of Charges Effective July 1, 2016, attached to the agreement. We estimate the fee for this portion of the services to be \$65,475, itemized as follows:

Roadway Restoration	\$	60,105
Survey Services		<u>5,370</u>
Total	\$	65,475

We request the budget for the project be increased \$65,475 to reflect this revised scope of services. The amended total for the agreement inclusive of all supplements is increased from \$19,580 to \$85,055.

We appreciate the opportunity to submit this proposed supplemental agreement. The terms of this agreement will become effective when confirmed by your signature within 30 days. If you wish to pursue this project after that time, this agreement may then be renegotiated. If the terms are acceptable, please sign your acceptance below and return

EVERETT
728 134th Street SW
Suite 200
Everett, WA 98204
425 741-3800

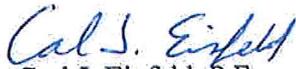
www.reidmiddleton.com

Mr. Jim Gross
BHC Consultants, LLC
September 9, 2016
File No. 222016.001
Page 2

one executed copy to Reid Middleton. If you have any questions or comments please call me.

Sincerely,

Reid Middleton, Inc.



Carl J. Einfeld, P.E.
Director, Surface Transportation

ACCEPTED:

BHC CONSULTANTS, LLC

By _____

Title _____

Date _____

Attachment

kab\H:\22\16\001 BHC; Everett R4 & R39 Regulator Mod\contract\Supp 1 - Street & Alley Restoration & SV\SupplementLetter 160901.doc\ce & jlp

Exhibit A
SCOPE OF SERVICES
Reid Middleton, Inc.

BHC Consultants, LLC
City of Everett R4 & R39 Regulator Mods
Roadway Restoration and Surveying

A. PROJECT UNDERSTANDING

BHC Consultants requires the services of Reid Middleton, Inc. to prepare plans, specifications, and estimate for roadway restoration associated with design upgrades to the sewer and storm drainage system at two intersections in Everett, Washington. Roadway restoration work will include replacement of existing pavement with new concrete pavement and replacement of existing curb ramps with new ADA compliant curb ramps at the following intersections:

- Chestnut Street and Alley (approx. 300 feet south of 26th Street)
- Summit Avenue and 26th Street

Reid Middleton will also conduct additional topographic survey to facilitate the design of improvements.

B. ASSUMPTIONS

- Both intersections contain existing concrete panels underneath asphalt pavement that will be replaced with new concrete pavement panels. The limits of intersection pavement replacement will extend to the new curb return limits.
- Existing curb returns, curb ramps and sidewalk will be replaced and/or modified as follows:
 1. Chestnut Street and Alley
 - a. Extend curb, gutter, and sidewalk around southeast corner of intersection to connect existing sidewalks.
 - b. Provide new curb return on northwest corner.
 - c. Provide a total of three new curb ramps: one on the northwest corner for both east/west and north/south crossings; one on the south side of the alley for north/south crossing; and one on the west side of Chestnut for east/west crossing.

2. Summit Avenue and 26th Street

- a. Replace eastern half of curb return in the northeast corner and provide one new curb ramp for north/south crossing.
 - b. Replace entire curb return in southeast corner and provide one curb ramp for north/south crossing and one curb ramp for east/west crossing.
 - c. Replace partial curb return in southwest corner and provide one curb ramp for east/west crossing. A total of four new curb ramps will be provided.
- All work within WSDOT limited access right-of-way will be permitted by others.
 - All environmental documentation will be provided by others.
 - Roadway restoration work associated with the parallel pipe option for R4 is not included.
 - Full street closures will be allowed at both intersections for the duration of construction.
 - Storm drainage design is not included. Storm drainage modifications associated with roadway restoration is limited to adjustment of existing catch basins to grade.
 - Cover, Sheet Index, Legend and Abbreviations, and Construction Staging plan sheets will be provided by BHC Consultants and are not included.
 - Design of walls or rockeries is not included.
 - Geotechnical investigation is not required.
 - It is assumed that all new curb ramps will be fully ADA compliant and that MEF documentation will not be necessary. If MEF documentation is required, the work will be performed under a supplement to this agreement.

C. SCOPE OF SERVICES

1. Management/Coordination/Administration

- a. Provide continuous project management and administration (team coordination, billing invoices, and monthly progress reports) throughout the project.

- b. Attend up to four project meetings with BHC Consultants and the City of Everett at kickoff, 30-, 90-, and 100-percent design stages.
 - c. Conduct an internal quality assurance program prior to major submittals.
2. Utility Coordination
- a. Identify potential utility conflicts associated with roadway restoration. Coordinate with utility franchises to resolve conflicts.
3. WSDOT Coordination
- a. Coordinate with WSDOT for approval of traffic control plans associated with a lane closure on the southbound I-5 off-ramp at Everett Avenue.
4. 60 Percent Design
- a. Develop preliminary layout of new curb ramps and curb returns for City review and concurrence prior to completing 60 percent plans.
 - b. Prepare 60 percent plans consisting of the following:
 - Alignment and Survey Control (2 sheets)
 - Typical Roadway Sections (1 sheet)
 - TESC and Site Preparation Plan (2 sheets)
 - Paving Plans and Details (5 sheets)
 - c. Prepare 60 percent special provisions related to roadway restoration plans in WSDOT format. The special provisions will address items of work which are not addressed by the APWA and WSDOT Standard Specifications.
 - d. Prepare 60 percent Opinion of Probable Construction Cost related to roadway restoration plans.
 - e. Respond to review comments provided by the City.

Deliverables:

- Preliminary layout in PDF format (half size) and five hard copies (full-size)

- 60 percent plans in PDF format (half-size) and five hard copies (full-size)
- 60 percent special provisions in WORD format
- 60 percent Opinion of Probable Construction Cost in PDF and Excel format

5. 90 Percent Design

a. Prepare 90 percent plans consisting of the following:

- Alignment and Survey Control (2 sheets)
- Typical Roadway Sections (1 sheet)
- TESC and Site Preparation Plan (2 sheets)
- Paving Plans and Details (5 sheets)
- Traffic Control Plans (3 sheets)

b. Prepare 90 percent special provisions related to roadway restoration plans in WSDOT format.

c. Prepare 90 percent Opinion of Probable Construction Cost related to roadway restoration plans.

d. Respond to review comments provided by the City.

Deliverables:

- 90 percent plans in PDF format (half-size) and five hard copies (full-size)
- 90 percent special provisions in WORD format
- 90 percent Opinion of Probable Construction Cost in PDF and Excel format

6. Final PS&E

a. Finalize plans, special provisions and Opinion of Probable Construction Cost with minor revisions in response to the City's comments.

Deliverables:

- Final signed plans (full size hardcopy)
- Final special provisions in WORD format

- Final Opinion of Probable Construction Cost in PDF and Excel format

7. Construction Support

- a. Reid Middleton will provide design engineering support to include submittal reviews, RFI's and site visits. A total of 24 hours is allocated for this support. If additional effort is required, the work will be performed under a supplement to this agreement.

8. Survey Services

Reid Middleton will provide additional topographic surveying locating the concrete joints at the intersection of 26th Street and Summit Avenue. In addition, a partial survey of the off-ramp of I-5 onto Everett Avenue will be conducted to provide mapping for traffic control plans. Field data will be added to the existing base map prepared by Reid Middleton in AutoCAD Civil 3D format.

ASSUMPTIONS

- The survey will be based on the City of Everett's horizontal coordinate datum and vertical datum.
 - The survey will be prepared in US Survey feet units.
 - The Client will arrange for and coordinate survey team access to the project site on private property and WSDOT right-of-way, if needed.
 - Trees greater than six inches DBH will be located and mapped using their common name.
 - Survey mapping will be developed at one-foot contour intervals. Measurements will be taken on an approximate 25-foot grid. Elevations will be shown by contours lines.
- a. Management/Coordination/Administration
- (1) Provide continuous survey team project management and administration (billing invoices and monthly progress reports) throughout the project.
 - (2) Acquire right-of-way documents and maps from the City of Everett to be shown on survey base map.
 - (3) Attend up to three project meetings with the design team.

- (4) The City of Everett will provide field books for the project. All notes will be recorded within the City of Everett's field books. A survey report will also be prepared and submitted to the City of Everett at the end of the project for their records.
- b. Utility Coordination
 - (1) Review utility as-built records to assist in mapping utility lines.
 - c. Horizontal Control
 - (1) Tie into the City of Everett's existing horizontal control network.
 - (2) Establish horizontal control points for project control.
 - d. Vertical Control
 - (1) Tie into the City of Everett's existing vertical control network.
 - (2) Establish bench marks adjacent to the site location.
 - (3) Establish elevations of all topographic survey control points.
 - e. Right-of-Way and Boundary Lines
 - (1) Right-of-way and property lines along all roadways will be determined based on the right-of-way drawings provided by the City of Everett.
 - (2) Property corners will not be set as a part of this phase of work.
 - f. Topographic Survey

Provide a topographic survey of the sites, adjacent streets and 25-feet beyond the project site. The topographic survey will include measurements and features within the survey limits as follows:

 - (1) Locations and elevations of surface types and features including sidewalks, curb and gutter, driveways, curb ramps, road pavement, striping, crosswalks, concrete slabs, equipment foundations, etc.
 - (2) Storm drainage: Catch basins and manholes, including pipe size, material and upstream and downstream invert elevations; culverts, including pipe size, material and upstream and downstream invert elevations.
 - (3) Sanitary sewers: Manholes, including pipe size, type and invert elevations; weir elevations, rims and structure inverts.

- (4) Water: Valves, fire hydrants, PIV's, services, including pipe size as noted on as-built plans.
- (5) Dry utilities: Gas, power, TV, telephone, fiber optic, including size and type as noted on as-built plans.
- (6) Surface features: Overhead power lines and marked underground utility lines, ground-level exterior building corners, vaults, power poles, walkways, retaining walls, signs, hand rails, paths, parking stripes, and parking areas.
- (7) Natural/Landscape: Planters, significant isolated trees (six inches in diameter and larger as measured at breast height) with generic tree description and shrubs.

g. Mapping

- (1) Merge field data to the prior base map prepared by Reid Middleton in AutoCAD Civil 3D format (per the City of Everett's standards) with a contour interval of one foot which reflects the topographic and physical information collected.
- (2) Indicate property lines described above as determined through the boundary determination from the City's GIS data base.
- (3) Incorporate as-built records into the base map.
- (4) Prepare legal descriptions and exhibit maps for City of Everett new Sewer upgrades lying within the WSDOT right of way.

h. Quality Control

- (1) Conduct QA/QC reviews of the survey and base map elements on an on-going basis.
- (2) Provide a quality assurance walk-through of the preliminary survey prior to submittal to the Client.
- (3) Perform work under the supervision and approval of a licensed Professional Land Surveyor (PLS). The licensed surveyor shall review and approve the survey information and drawings for completeness.

Deliverables

- Coordinate point data listing – paper copy and ASCII file (if needed)
- Engineering base map - AutoCAD Civil 3D format file

D. SERVICES PROVIDED BY BHC CONSULTANTS

BHC Consultants shall provide the following:

1. Base mapping as needed for design.
2. Record drawings for existing roadways and utilities.
3. Incorporation of Reid Middleton PS&E documents into 60 percent, 90 percent and final bid documents.
4. Electronic copy of City of Everett’s boilerplate Special Provisions.

E. DESIGN CRITERIA

Reports and plans, to the extent feasible, will be developed in accordance with the latest edition and amendments as of the date of signing of this agreement, of the following documents. Changes in any design standards or requirements after work has begun may result in extra work.

1. City of Everett, “Design and Construction Standards and Specifications.”
2. Washington State Department of Transportation, “Standard Plans for Road and Bridge Construction.”
3. Washington State Department of Transportation, “Design Manual.”
4. Washington State Department of Transportation Amendments and General Special Provisions.
5. Washington State Department of Transportation, “Traffic Manual.”
6. FHWA and Washington State Department of Transportation, “Manual on Uniform Traffic Control Devices for Streets and Highways.”
7. AASHTO 2011, A Policy of Geometric Design of Highways and Streets.”
8. Draft 2011 PROWAG.

clw & kab\h:\22sv\16\001 bh; everett r4 & r39 regulator mods\contracts\Supp 1 Roadway Restoration & Survey\exhibit A scope everett r4 & r39_ST & SV.docx\ce & jlp

August 26, 2016
HWA Project No. 2016-P101-21

BHC Consultants, LLC
1601 Fifth Avenue, Suite 500
Seattle, Washington 98101

Attention: Jim Gross, P.E.

Subject: **Geotechnical Engineering Services**
Snohomish River Overflow Structure R4
Everett, Washington

Dear Jim:

As requested, HWA GeoSciences Inc. (HWA) is pleased to present this scope of work to provide geotechnical engineering services for the design of modifications associated with the Snohomish River Overflow Structure R4 in Everett, Washington.

PROJECT UNDERSTANDING

It is our understanding that the City of Everett's (City) Snohomish River Overflow 4 (SR04) currently experiences more than the Department of Ecology's allowable average of one CSO per year. To reduce CSO occurrences, modifications to the R4 structure are proposed. R4 currently consists of a manhole with existing 42-inch and 30-inch inlet pipes, a 48-inch primary discharge pipe, and a leaping weir connecting to a 30-inch overflow pipe. Proposed modifications to the R4 system would be to replace this structure with a new vault that includes an inlet chamber for the 42-inch pipe, a primary 48-inch discharge pipe, and an adjustable flat plate style weir that discharges to the 30-inch overflow pipe. These modifications would result in the construction of four manholes that extend to depths ranging from 23 to 25 feet below ground surface. Additionally, a Weir structure would be constructed that would extend to approximately 25 feet below ground surface. Installation of these structures and the associated piping will require completion of deep excavation that will require vertical shoring. Several of the proposed structures will be located within WSDOT right of way. To complete the geotechnical portions of this work, HWA proposes the following scope of work.

GEOTECHNICAL ENGINEERINGS SERVICES SCOPE

Project Management

This work will include the following subtasks.

- **Geotechnical Project Management:** HWA will provide task management for the geotechnical aspects of the project. This will include preparing monthly invoices and

August 26, 2016

HWA Project No. 2016-P101-21

progress reports if required. We will correspond with the City and the design team in the form of emails, fax, and telephone calls, as necessary.

Geotechnical Explorations

This work will include the following subtasks.

- **Conduct Site Reconnaissance and Utility Locates:** Prior to conducting our field exploration program, HWA will conduct a reconnaissance of the site. This reconnaissance will be focused on identifying critical surface features of the site and identifying the best exploration locations. During our site reconnaissance, HWA will mark proposed boring locations and call for utility locates.
- **Develop Geotechnical Exploration Memorandum:** HWA will prepare a Geotechnical Work Plan Memorandum for our exploration program. This work plans will be submitted to the City for review and approval. The work plan will also serve as a tool for obtaining WSDOT approval for the borings within the WSDOT right of way. The plan will detail the type, location, and extent of proposed field explorations along with logistics necessary to perform the work such as traffic control plans and staging areas. The work plans will also be used for utility locating clearances and for permitting that may be necessary to access the exploration locations. We assume the CITY will be the point of contact with WSDOT for drilling approval and permitting.
- **Assist the City with WSDOT Coordination of Drilling program:** HWA will participate in up to one meeting with the city and WSDOT with respect to our proposed explorations within the WSDOT right of way if required.
- **Conduct Subsurface Explorations:** HWA will conduct a series of three (3) fifty (50) foot borings in the vicinity of the proposed improvements to identify and characterize the subsurface soils and groundwater conditions.

Two (2) borings will be drilled within the grassy area on the west side of the chain link fence separating the open area from the WSDOT off ramp. Both of the borings will be within the WSDOT right of way and will be drilled with a track mounted drill rig. One of these borings will be drilled near the northwestern corner of the proposed weir structure. The other boring will be drilled on the western side of the chain-link fence, between the proposed weir structure and the eastern most manhole. A groundwater monitoring well will be installed at this location to allow for groundwater monitoring. A groundwater monitoring transducer will be installed within well to monitor groundwater over a period of up to 6 months.

August 26, 2016
HWA Project No. 2016-P101-21

The third boring will be drilled in the grassy area behind the guard rail, near the northern most proposed manhole structure. This boring will also be within the WSDOT right of way and will be drilled with a track mounted drill rig.

All exploration activities will be monitored full time by a HWA geotechnical engineer or geologist. We expect that drilling of the three (3) proposed borings and one (1) well install will take approximately 2 working days.

- **Generate Boring Logs and Conduct Laboratory Testing:** All of the soil samples retrieved from our explorations will be sealed in plastic bags and taken to our Bothell, Washington laboratory for further examination and testing. Selected soil samples will be tested to determine relevant engineering and index properties for our engineering analyses. Soil and laboratory test information will be presented on summary boring logs that will be generated upon completion of our exploration program.
- **Groundwater Monitoring:** HWA will make up to 3 site visits to collect groundwater readings from the transducer installed in the proposed monitoring well. Groundwater monitoring will be conducted for a period of 6 months from the installation of the well.
- **Develop Geologic Interpretation:** HWA will construct a geologic profile across the proposed site based on the information obtained from the above described geotechnical borings. This profile will be provided in the geotechnical report and will be used for design calculations.

Geotechnical Engineering

This work will include the following subtasks.

- **Engineering Analysis:** HWA will evaluate the data derived from our field investigations and laboratory testing to complete our engineering analysis. Our engineering analysis will include development of seismic design parameters, foundation design, uplift evaluations, dewatering analysis, temporary shoring earth pressures and permanent earth pressures.
- **Internal QA/QC:** HWA will have all design calculations and recommendations reviewed by a senior principal prior to distribution to the design team or the CITY.
- **Geotechnical Engineering Report:** HWA will generate a draft and final geotechnical engineering report that will contain the results of the geotechnical engineering investigation, including description of surface and subsurface conditions; a site plan showing exploration locations and other pertinent features; summary boring logs; and

August 26, 2016
HWA Project No. 2016-P101-21

laboratory test results. The report will provide a narrative and geotechnical recommendations for each of the above described geotechnical aspects of the project.

- **Project Coordination Meeting:** HWA will attend up to one (1) project coordination meeting at the City of Everett Office. This meeting will be to convey the geotechnical considerations of the site to the City and the design team.
- **60 Percent Plan Review:** HWA will conduct a plan review at the 60 percent milestone to insure that the geotechnical aspects of the project have been properly incorporated into the project plans.

Assumptions:

- The CITY will obtain permission to access the proposed areas within the WSDOT right of way.
- Any required street use, and other permit fees will be paid by others.
- No analytical testing will be conducted to identify potential soil contamination.
- Groundwater monitoring well abandonment will be completed by the contractor during construction and not as part of the design phase of this project.
- Non-contaminated drilling spoils will be collected and disposed of offsite by the driller. If soil contamination is identified, drilling spoils will be drummed and left within the grassy area until such time as analytical testing is completed to determine an appropriate disposal site. Coordination associated with contaminated spoil removal, if required, is not included in this scope and budget.
- All drilling will be completed during the weekday daylight hours between 7AM and 6 PM.

Deliverables:

- Geotechnical Exploration Memorandum
- Draft and final geotechnical report

COST ESTIMATE

Based on our understanding of the project and assumed site conditions, we propose to provide the above geotechnical engineering scope of services on a time and materials basis not to exceed **\$38, 723**. However, if during the project unexpected conditions are revealed that require alteration of our work scope, or the Client or Owner request analyses and evaluations which would require a level of effort beyond the scope of our proposed study and budget, we will contact you immediately to discuss any necessary modifications to our scope of services and/or budget estimate. A summary of our estimated costs are presented on the attached spreadsheet.

August 26, 2016
HWA Project No. 2016-P101-21

Our scope of services does not include evaluation of the potential presence and/or concentrations of contaminated and/or hazardous materials on site, nor within the ground water at the site location.

Our scope of work also excludes construction inspection services.



We appreciate the opportunity to provide geotechnical engineering services on this project. Please feel free to call if you have any questions or need additional information.

Sincerely,

HWA GEOSCIENCES INC.

Donald J. Huling, P.E.
Geotechnical Engineer, Principal

PROJECT COST ESTIMATE
 GEOTECHNICAL SERVICES
 SNOHOMISH RIVER OVERFLOW STRUCTURE R4
 EVERETT, WASHINGTON

HWA Ref.: 2016-P101-21
 Date: 26-Aug-2016
 Prepared for: BHC
 Prepared By: DJH

PROPOSED SCOPE: See attached Scope Document

ESTIMATED HWA LABOR:

WORK TASK DESCRIPTION	PERSONNEL AND 2016 HOURLY RATES							TOTAL HOURS	TOTAL LABOR
	Principal \$250.00	Geotechnical Engineer VI \$170.00	Geotechnical Engineer III \$125.00	Geotechnical Engineer I \$115.00	Geologist V \$115.00	CAD/Tech \$75.00	Clerical \$72.00		
Project Management									
Project management		10	11					21	\$3,075
Geotechnical Explorations									
Conduct site reconnaissance & utility locates			4					4	\$500
Develop Geotechnical Exploration Memo		2	10			2		14	\$1,740
Assist the City with Exploration Coordination with WSDOT		4	4					8	\$1,180
Conduct geotechnical explorations (assume 3 borings)			4		20			24	\$2,800
Generate boring logs and assign laboratory testing			2	4	1			7	\$825
Groundwater monitoring (3 site visits)				9				9	\$1,035
Develop geologic interpretation and Profile			1		4	3		8	\$810
Geotechnical Engineering									
Develop Foundation Design for Structures		1	4					5	\$670
Develop Seismic Design Parameters			1	3				4	\$545
Develop Dewatering Recommendations	2		4					6	\$1,000
Develop Temp Shoring Earth Pressures		1	4			3		8	\$895
Develop Permanent Structure Earth Pressures		1	6			4		11	\$1,220
Internal QA/QC	6	4						10	\$2,180
Generate Draft Geotechnical Report	2	4	12	6	4		1	31	\$4,052
Participate in Team Meeting (assume 1 meeting)			3	3				6	\$885
60% Plan Review and Specification Generation	1	4	6					11	\$1,680
Generate final geotechnical report	1	2	4			2	1	10	\$1,312
DIRECT LABOR:	12	37	82	19	29	16	2	197	\$26,404

LABORATORY TESTING ESTIMATE:

TEST	Est. No. Tests	Unit Test Cost \$/each	Total Cost
Atterberg Limits	1	\$155	\$155
Natural Moisture Content	18	\$18	\$324
Grain Size Analysis	12	\$95	\$1,140
LABORATORY TOTAL:			\$1,619

ESTIMATED DIRECT EXPENSES:

Mileage IRS Rate	\$150
TOTAL DIRECT EXPENSES:	\$150

ESTIMATED PROJECT TOTALS AND SUMMARY:

Total Labor Cost	\$26,404
Laboratory Testing	\$1,619
Drilling subcontractor Cost	\$8,000
Driller mark up (10%)	\$800
Driller Bond (WSDOT)	\$750
Groundwater Transducer Rental	\$500
Traffic Control	\$500
Direct Expenses	\$150
ESTIMATED TOTAL:	\$38,723.00

CITY OF EVERETT - EXHIBIT B-1 - SEWER REGULATORS R4 AND R39 MODIFICATIONS
PROJECT HOURS, EXPENSES AND FEE ESTIMATE

Date: 13-Sep-16

Labor Category	Direct Salary Hourly Rates, (\$\$,CC)	HOURS FOR EACH TASK (Whole Hours Only)										Total Hours	Cost	
		Task 1 Project Management & QA/QC	Task 2 Hydraulic Analysis/Modeling	Task 3 Geotechnical Investigation	Task 4 Surveying	Task 5 Design	Task 6 Permitting Assistance	Task 7 Bidding Assistance	Task 8 Construction Support	Task 9 Additional Services				
1 Principal in Charge (Contract Manager (R. Dom))	\$ 75.50	24	0	0	0	0	0	0	0	0	0	0	24	\$ 1,812
2 Project Manager (G. Cross)	\$ 67.00	120	12	8	8	24	8	8	8	8	8	8	248	\$ 16,616
3 Project Engineer (P. Cunningham)	\$ 42.50	0	60	8	8	130	16	16	16	16	16	16	258	\$ 10,955
4 Engineer (P. Love)	\$ 31.00	0	0	0	0	195	0	0	0	0	0	0	215	\$ 6,665
5 Electrical Engineer														
6 Senior Professional Road Design														
7 Professional Road Design														
8 Road Design														
9 Structural Engineer (K. Dahl)	\$ 68.00	0	0	0	0	230	0	0	0	0	0	0	230	\$ 17,000
10 Hydraulic Modeler (D. Farms)	\$ 63.50	0	20	0	0	0	0	0	0	0	0	0	20	\$ 1,270
11 Cost Estimator CA														
12 Cost Estimator GA														
13 Drafter /CAD (M. Caldwell)	\$ 33.50	0	0	0	0	414	0	0	0	0	0	0	414	\$ 13,869
14 Project Administrator (U. Person)	\$ 33.70	30	0	0	0	0	0	0	0	0	0	0	30	\$ 1,011
15 CAD Manager (P. Simon)	\$ 47.25	0	0	0	0	46	0	0	0	0	0	0	46	\$ 2,174
16 Cliental (S. Sifferman)	\$ 25.85	0	0	0	0	20	0	0	0	0	0	0	24	\$ 1,137
17 Staff														
18 Staff														
19 Staff														
20 Staff														
Total Task Hours		174	92	16	16	1059	16	16	24	24	24	24	1,549	
Subtotal Direct Salary Cost (DSC), \$		10,863	4,624	876	876	46,378	876	876	1,216	1,216	1,216	1,216	7,470	\$ 72,519
Overhead on DSC (Indirect cost) @ .%	152.27%	16,541	7,041	1,334	1,334	69,097	1,334	1,334	1,852	1,852	1,852	1,852	11,375	\$ 110,425
Total Labor Cost, \$		27,404	11,665	2,210	2,210	114,475	2,210	2,210	3,068	3,068	3,068	3,068	18,845	\$ 182,945
Expenses, \$														
1 Reimbursable Expenses		250	250	100	100	1,000	100	100	100	100	100	100	30,000	\$ 2,800
2 Communication Charge (3% of labor)		620	350	70	70	3,430	70	70	90	90	90	90	5,490	\$ 5,490
3 Expense														\$ -
4 Expense														\$ -
5 Expense														\$ -
6 Expense														\$ -
7 Expense														\$ -
8 Per Labor Hr. Tech. Charge		0	0	0	0	0	0	0	0	0	0	0	0	\$ -
Total Expenses, \$		1,070	600	170	170	4,430	170	170	190	190	190	190	30,000	\$ 8,290
TOTAL LABOR AND EXPENSES		28,474	12,265	2,380	2,380	118,905	2,380	2,380	3,258	3,258	3,258	3,258	20,415	\$ 191,235
Subcontractant Expenses, \$														
1 Subcontractant (Reid/Middletown)					5,370	60,105								\$ 65,475
2 Subcontractant (HWA Geosciences)				38,723										\$ 38,723
3 Subcontractant														\$ 0
4 Subcontractant														\$ 0
5 Subcontractant														\$ 0
6 Subcontractant														\$ 0
7 Subcontractant														\$ 0
8 Subcontractant														\$ 0
TOTAL SUBCONSULTANTS		0	0	38,723	5,370	60,105	0	0	0	0	0	0	0	\$ 104,198
Subcontractant Admin Mark-up, %	5.00%	28,474	12,265	1,936	269	3,005	0	0	0	0	0	0	0	\$ 5,710
Subtotal Cost by Task		28,474	12,265	43,039	8,019	182,015	3,258	3,159	3,159	3,159	3,159	3,159	20,415	\$ 300,643
Fee/Profit (as % of Total DSC & Overhead)	12.00%	3,286	1,400	265	265	13,737	368	368	368	368	368	368	2,261	\$ 21,952
Next Year's Labor Escalation*	3.00%	645	274	52	52	2,632	72	72	72	72	72	72	443	\$ 4,302
TOTAL ESTIMATED COST AND FEE, \$		32,407	15,939	43,356	8,336	198,444	3,698	3,698	3,698	3,698	3,698	3,698	23,119	\$ 356,897

* Next year's labor escalation was calculated assuming 70.00% of the work would be completed next year.

Enter data in yellow & green shaded cells only. Other formula cells are locked to prevent accidental changes. There is no password protection.

Overall Project Multiplier 2.83

Fee/Profit as a % of DSC Only 30.27%